



DIPE

PATENT APPLICATION
DOCKET NO.: 1855.1063-010

1644

#8
4/28/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Lijun Wu, Nancy Ruffing and David P. Andrew

Application No.: 10/055,789

Group Art Unit: 1644

Filed: January 18, 2002

Examiner: Not Assigned

Title: ANTI-CCR4 ANTIBODIES AND METHODS OF USE THEREFOR

RECEIVED
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CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, P.O. Box 2327, Arlington, VA 22202	
on <u>6/11/02</u>	<u>Jessica Lanciani</u>
Date	Signature
<u>Jessica Lanciani</u>	
Typed or printed name of person signing certificate	

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
P.O. Box 2327
Arlington, VA 22202

Sir:

This Information Disclosure Statement is submitted:

☐ under 37 CFR 1.129(a), or

(First/Second submission after Final Rejection)

☒ under 37 CFR 1.97(b), or

(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

☐ under 37 CFR 1.97(c) together with either:

☐ a Statement under 37 CFR 1.97(e), as checked below, or

☐ a \$180.00 fee under 37 CFR 1.17(p), or

(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

☐ under 37 CFR 1.97(d) together with:

☐ a Statement under 37 CFR 1.97(e), as checked below, and

☐ a \$180.00 fee under 37 CFR 1.17(p), or

(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

☐ under 37 CFR 1.97(i):

Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.

(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
 - ☒ Copies of the cited references are enclosed.
 - ☐ Copies of cited references are enclosed except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
 - ☒ Some of the listed references were cited in the enclosed International Search Report in a counterpart foreign application.
 - ☒ The "concise explanation" requirement (non-English references) for references AP and AL2 under 37 CFR 1.98(a)(3) is satisfied by:
 - ☐ the explanation provided on the attached sheet.
 - ☐ the explanation provided in the Specification.
 - ☐ submission of the enclosed International Search Report.
 - ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
 - ☒ the enclosed English language abstract from PCT publication WO 95/08576 for reference AP and the abstract submitted as reference AU3 for reference AL2.

[X] Applicant requests that the following non-published pending applications be considered:

Examiner's
Initials

____ U.S. Patent Application No. 09/837,446, by Eugene C. Butcher, James Campbell, Lijun Wu and James B. Rottman, filed April 17, 2001, Docket No.: 1855.0082-002 (STAN110CON).

____ U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []

____ U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []

Examiner

Date

[X] A copy of each above-cited application, including the claims as filed, is enclosed.

[] A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

[] A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

[] Please charge Deposit Account 08-0380 in the amount of \$[]. A copy of this Statement is enclosed.

[X] Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By



Lisa M. Treannie

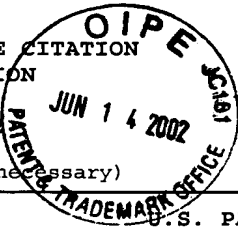
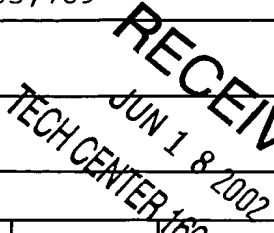
Registration No.: 41,368

Telephone: (978) 341-0036

Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 6/10/02

PTO-1449 REPRODUCED INFORMATION DISCLOSURE CITATION IN AN APPLICATION June 11, 2002 (Use several sheets if necessary)				ATTORNEY DOCKET NO. 1855.1063-010		APPLICATION NO. 10/055,789	
				APPLICANTS Lijun Wu, et al.			
				FILING DATE January 18, 2002			
U.S. PATENT DOCUMENTS							
EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE OF APPROPRI- ATE
	AA	5,440,021	08-Aug-95	Chuntharapai et al.	530	388.22	
	AB	5,543,503	06-Aug-96	Chuntharapai et al.	530	388.22	
	AC	5,932,703	03-Aug-99	Godiska, et al.	530	351	
	AD	5,919,776	06-Jul-99	Hagmann, et al.	514	159	
	AE	6,084,075	04-Jul-00	Lind, et al.	530	388.22	
	AF	6,150,132	21-Nov-00	Wells, et al.	435	69.1	
	AG	6,245,332 B1	12-Jun-01	Butcher, et al.	424	184.1	
	AH						
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLA TION <div style="text-align: right;">YES NO</div>
	AL	EP 0 860 446 A1	26 Aug 1998	EPO			
	AM	WO 96/23068	01 Aug 1996	PCT			
	AN	WO 98/44953	15 Oct 1998	PCT			
	AO	WO 99/15666	01 Apr 1999	PCT			
	AP	WO 95/08576	30 Mar 1995	PCT			X
	AQ	WO 98/27815	02 Jul 1998	PCT			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
✓	AR	Frade, J.M.R., et al., "Characterization of the CCR2 Chemokine Receptor: Functional CCR2 Receptor Expression in B Cells", <i>J. of Immunology</i> , 159:5576-5584 (1997).					
✓	AS	Wu, L., et al., "Discrete Steps in Binding and Signaling of Interleukin-8 with Its Receptor", <i>The Journal of Biological Chemistry</i> , 271(49): 31202-31209 (1996).					
✓	AT	Wu, L., et al., "Interaction of Chemokine Receptor CCR5 with its Ligands: Multiple Domains for HIV-1 gp120 Binding and a Single Domain for Chemokine Binding", <i>J. Exp. Med.</i> , 186(8): 1373-1381 (1997).					
EXAMINER				DATE CONSIDERED			

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ATTORNEY DOCKET NO.
1855.1063-010APPLICATION NO.
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EXAM- INER INI- TIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
AL2	JP 11-243960	14 Sep 1999				X

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	AU	Meyer, A., et al., "Cloning and Characterization of a Novel Murine Macrophage Inflammatory Protein-1 α Receptor," <i>The Journal of Biological Chemistry</i> , 271(24):14445-14451 (1996).
✓	AV	Imai, T., et al., "Macrophage-Derived Chemokine Is a Functional Ligand for the CC Chemokine Receptor 4," <i>The Journal of Biological Chemistry</i> , 272(3):1764-1768 (1998).
✓	AW	Imai, T., et al., "The T Cell-Directed CC Chemokine TARC Is a Highly Specific Biological Ligand for CC Chemokine Receptor 4," <i>The Journal of Biological Chemistry</i> , 272(23):15036-15042 (1997).
✓	AX	Bonecchi, R., et al., "Differential Expression of Chemokine Receptors and Chemotactic Responsiveness of Type 1 T Helper Cells (Th1s) and Th2s," <i>J. Exp. Med.</i> , 187(1):129-134 (1998).
✓	AY	Dürig, J., et al., "Expression of Macrophage Inflammatory Protein-1 α Receptors in Human CD34 ⁺ Hematopoietic Cells and Their Modulation by Tumor Necrosis Factor- α and Interferon- γ ," <i>Blood</i> , 92(9):3073-3081 (1998).
✓	AZ	Catalog of Santa Cruz Biotechnology, Inc., Research Antibodies 97/98, pages 319-320 (1997).
✓	AR2	Power, C.A., et al., "Molecular Cloning and Functional Expression of a Novel CC Chemokine Receptor and cDNA from a Human Basophilic Cell Line," <i>The Journal of Biological Chemistry</i> , 270(33):19495-19500 (1995).
✓	AS2	Youn, B-S., et al., "Molecular Cloning and Characterization of a cDNA, CHEMR1, Encoding a Chemokine Receptor with a Homology to the Human C-C Chemokine Receptor, CCR-4," <i>Blood</i> , 89(12):4448-4460 (1997).
✓	AT2	GenBank Accession No: X94151, 04-Jul-1996 NCB1 [online]. [retrieved on 11-FEB-1999] Retrieved from the Internet, <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve+db=nucleotide+list_uids....>

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FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	AU2	Genebank Accession No. X85740, 04-Jun-1996 NCB1 [online]. [retrieved on 11-Feb-1999] Retrieved from the Internet, <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve+db=nucleotide+list_uids:...>
✓	AV2	Förster, R. et al., "A general method for screening mABs specific for G-protein coupled receptors as exemplified by using epitope tagged BLR1-transfected 293 cells and solid-phase cell ELISA," <i>Biochemical and Biophysical Research Communications</i> , 196(3):1496-1503 (1993).
✓	AW2	Andrew, D.P. et al., "STCP-1 (MDC) CC Chemokine Acts Specifically on Chronically Activated Th2 Lymphocytes and Is Produced by Monocytes on Stimulation with Th2 Cytokines IL-4 and IL-13," <i>The Journal of Immunology</i> , 161:5027-5038 (1998).
✓	AX2	Sallusto, F. et al., "Flexible Programs of Chemokine Receptor Expression on Human Polarized T Helper 1 and 2 Lymphocytes," <i>J. Exp. Med.</i> , 187(6):875-883 (1998).
✓	AY2	Ponath, P.D., "Chemokine receptor antagonists: novel therapeutics for inflammation and AIDS," <i>Exp. Opin. Invest. Drugs</i> , 7(1):1-18 (1998).
✓	AZ2	Yoneyama, H., et al., "Pivotal Role of TARC, a CC Chemokine in Bacteria-Induced Fulminant Hepatic Failure in Mice," <i>J. Clin. Invest.</i> , 102(11):1933-1941 (1998).
✓	AR3	Heath, H., et al., "Chemokine Receptor Usage by Human Eosinophils-The Importance of CCR3 Demonstrated Using an Antagonistic Monoclonal Antibody," <i>J. Clin. Invest.</i> , 99(2):178-184 (1997).

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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	AS3	Campbell, J.J., et al., "The chemokine receptor CCR4 in vascular recognition by cutaneous but not intestinal memory T cells," <i>Nature</i> , 400:776-780 (1999).
3	AT3	XP002138299, Abstract No. 1999-603709[52], (abstract of Japanese Patent No. JP11243960).
✓	AU3	Chuntharapai, A., et al., "Generation of Monoclonal Antibodies to Chemokine Receptors," <i>Methods in Enzymology</i> , 288:15-27 (1997).
✓	AV3	Thompson, S.D., et al., "Chemokine Receptor CCR4 on CD4 ⁺ T Cells in Juvenile Rheumatoid Arthritis Synovial Fluid Defines a Subset of Cells with Increased IL-4:IFN- γ mRNA Ratios," <i>J. Immunology</i> , 166:6899-6906 (2001).
✓	AW3	Panina-Bordignon, P., et al., "The C-C chemokine receptors CCR4 and CCR8 identify airway T cells of allergen-challenged atopic asthmatics," <i>J. Clin. Invest.</i> , 107:1357-1364 (2001).
✓	AX3	Chvatchko, Y., et al., "A Key Role for CC Chemokine Receptor 4 in Lipopolysaccharide-induced Endotoxic Shock," <i>J. Exp. Med.</i> , 191:1755-1763 (2000).
✓	AY3	Inngjerdinger, M., et al., "Human NK Cells Express CC Chemokine Receptors 4 and 8 and Respond to Thymus and Activation-Regulated Chemokine, Macrophage-Derived Chemokine, and I-309," <i>J. Immunol.</i> , 164:4048-4054 (2000).
✓	AZ3	Mackay, C. R., "Chemokines: immunology's high impact factors," <i>Nature Immunology</i> , 2:95-101 (2001).

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